



Figure 14. Boxplots of TN for the wetland swale and dry swale outlets.

Efficiency ratios (ERs) from the edge-of-pavement to the swale outlet and from the filter strip outlet to the swale outlet are presented in Table 11. Nitrate reductions were significant and substantial from the edge of pavement to the outlet of the swale at all four sites. Interestingly, the dry swale at site D reduced nitrate concentrations to 50% of the concentration at the outlet of the filter strip. Nitrate concentration and load reductions were also observed in two dry swales in Texas (Barrett et al. 1998). TN concentrations were significantly reduced from the edge-of-pavement to the swale outlet at sites C and D, but similar results were not found at sites A and B.  $\text{NH}_4\text{-N}$  concentrations were significantly decreased by all four swales when compared against edge-of-pavement and VFS outlet concentrations. Organic nitrogen concentrations were reduced (non-significantly) from the filter strip outlet to the swale outlet at sites A and D. However, edge-of-pavement organic nitrogen concentrations were always significantly lower than those at the swale outlet. Perhaps this result is due to the addition of decaying plant matter as the stormwater passes through the filter strip and swale. Mean TP concentrations *increased* from the edge-of-pavement to the swale outlet at sites A, B, and D, and were reduced by 18% at site C. It is speculated that because of the low TSS concentrations emitted from the PFC-overlaid